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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,292	10/25/2001	Frederick M. Morgan	C1104.70089US00	1752
23628	7590	09/07/2006	EXAMINER	
WOLF GREENFIELD & SACKS, PC FEDERAL RESERVE PLAZA 600 ATLANTIC AVENUE BOSTON, MA 02210-2206			A, MINH D	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/040,292	MORGAN ET AL.	
	Examiner	Art Unit	
	Minh D A	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/28/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-15, 17-20, 23-25, 27-36, 38-62, 74 and 75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-15, 34, 39-41, 61 and 62 is/are allowed.
- 6) ☒ Claim(s) 17-20, 23-25, 27-33, 35, 36, 38, 42-45 and 55 is/are rejected.
- 7) ☒ Claim(s) 46-54, 56-60, 74 and 75 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 17-20, 23-24, 27-32, 33-36, 38-56 are rejected under 35 U.S.C. 102(a) as being anticipated by Love (US 6,616,291).

Regarding claims 17-19, Love discloses at least one light source (LED) adapted to be supported by one of a pool and a spa to illuminate a liquid contained in the one of the pool and the spa, the at least one light source including at least one LED, and an interface (40) coupled to the at least one light source (LED), the interface being adapted to engage mechanically and electrically with a conventional light socket supported by the one of the pool and the spa, wherein: the conventional light socket includes a wedge type light socket; and the interface is adapted to engage mechanically and electrically with the wedge type light socket (since the claims language, it is clear that the wedge type light socket, a pool and a spa are not claimed structural limitations, and the claims are examined in scope accordingly). See figures 1-8, col.2, lines 55-67 to col.6, lines 1-30.

Regarding claims 20, 23-24, figure 5, Love discloses at least one light source (LED56 and 58) adapted to be supported by one of a pool and a spa to illuminate a liquid contained in the one of the pool and the spa to illuminate a liquid contained in the one of the pool and the spa, the least one light source including at least one LED, wherein the at least one light source is adapted to generate radiation of different colors without requiring the use of a color filter. See figures 1-6, col.3, lines 5-67 to col.4, lines 1-67.

Regarding claims 25 and 27, Love discloses the at least two independently controllable light sources include at least two independently addressable light sources. See figures 10-11, since the MCLR for driving the LED by address and data.

Regarding claims 28-30, Love discloses the at least one controller is adapted to control a color of the radiation output by the at least one light source and the at least one controller is adapted to control an intensity of the radiation output by the at least one light source and the at least one controller outputs at least one control signal to the at least one light source to control the radiation output by the at least one light source; and the at least one control signal includes at least one pulse width modulated signal. See figure 11.

Regarding claims 31-32, Love discloses the at least one controller outputs at least one control signal to the at least one light source to control the radiation output by the at least one light source; and the at least one control signal includes at least one variable analog signal and the at least one LED includes at least a first LED and a second LED, the first and second LEDs having different colors; and the at least one

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controller is adapted to control a first intensity of the first LED and a second intensity of the second LED. See figures 8-11, col.3, lines 5-67 to col.4, lines 1-67.

Regarding claims 33, 35-36, 38 and 42, Love discloses at least one light source adapted to be supported by one of a pool and a spa to illuminate a liquid contained in the one of the pool and the spa, the at least one light source including at least one LED further comprising at least one controller coupled to the at least one light source to control radiation output by the at least one light source, and at least one storage device, coupled to the at least one controller, to store at least one illumination program, wherein the at least one controller is adapted to execute the at least one illumination program so as to control the radiation output by the at least one light source. See figures 8-11, col.3, lines 5-67 to col.4, lines 1-67.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Love (US 6,616,291).

Regarding claims 43-46, Love essentially discloses the claimed invention but does not explicitly disclose that the each pin of the two pins has a diameter of approximately a range of inches. It would have been an obvious matter of design choice

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to employ Love's underwater lighting system in order to maximize the usage of his invention, since applicant does not disclose that, all of these limitations can solve any stated problem and for any particular purpose. Therefore, it appears that the invention would not provide any improvement but merely apply the invention in different presentation.

Allowable Subject Matter

5. Claims 47-54, 56-60 and 74-75 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 12-15, 34, 39-41, 61-62 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach that, at least one pin of the two pins includes at least one perturbation to facilitate mechanical engagement of the interface and the wedge type light socket recited in dependent claims 47 and 56.

The prior art does not teach that, an encapsulant to protect the at least one light source from moisture and the conventional light socket includes a wedge type light socket; and the interface is adapted to engage mechanically and electrically with the wedge type light socket recited in independent claims 12 and 17.

The prior art does not teach that, at least one controller coupled to the at least one light source to control radiation output by the at least one light source, wherein the at least one light source includes at least a first light source and a second light source

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each adapted to be supported by the one of the pool and the spa and to illuminate the liquid contained in the one of the pool and the spa in combination with all limitations recited in independent claims 12, 17-19, and 34.

The prior art does not teach that, at least one storage device couple to the at least one controller, to store at least one illumination program, wherein the at least one controller is adapted to execute the at least one illumination program in combination with all limitations recited in dependent claim 33.

The prior art does not teach that, the interface being adapted to engage mechanically and electrically with a wedge type light socket supported by the one of the pool and the spa, wherein the one of the pool and the spa has a range of typical liquid levels of the liquid during use, wherein the wedge type light socket is located below the range of typical liquid levels, and wherein the light fixture further includes: an encapsulant to protect the at least one LED from moisture in combination with all limitations recited in independent claim 39.

The prior art does not teach that, acts of engaging at least one light fixture mechanically and electrically with a wedge type light socket supported by the one of the pool and spa, the at least one light fixture including at least one LED; and b) providing at least power to the at least one light fixture via the wedge type light socket to illuminate the liquid in combination with all limitations recited in independent claims 61-62.

Citation of relevant prior art


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Silveri. (US RES 37,055) and Silveri. (US 5,221,444) are cited to show a light pool.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 AM-2:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TUYET VO
PRIMARY EXAMINER

Examiner

Minh A

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8/30/06